



## Against the Robotization of Education

Martin Laba

Simon Fraser University, Canada

### Abstract

*The Action Network BC—an amalgam of organizations and initiatives focused on organizing, advocacy, and community engagement in British Columbia, Canada-- recently sent out a petition for signatures of educators in support of a request that the provincial government put a “pause on generative AI in BC schools”. Of course, the proverbial ship has sailed in terms of AI and a “pause” is daunting, if not impossible. The petition demonstrates the compelling concern with “AI dependency in young people” and the deleteriousness of this dependency in terms of the mental health of youth. This action arises from a deep anxiety among educators and education policymakers with the rise of AI and with the dramatic shift in educational practices, policies, and culture. The transformations wrought by AI are not unprecedented. Such decisive and profound social transformations have been in abundant evidence throughout the entire history of communication technological innovation and advance, and especially in the emergence of digital technologies in educational contexts. Almost 20 years ago, Nicholas Carr asked the provocative question, “Is Google Making Us Stupid?”, an article in the Atlantic that was the foundation for his book, *The Shallows: What the Internet is Doing to Our Brains*. (Carr, 2020)[1] Carr’s concerns with the internet were focussed less on the unprecedented availability and ubiquity of a digital avalanche and velocity of information, and more with how the very communicative form of the internet molds our understandings of self and society, and the priorities and assumptions we make about the world around us. The consequences have been profound and both cognitive and cultural in nature. Following advances in neuroscientific research, Carr offers an account of a particular neuroplasticity—how the brain changes with experience; that is, how our use of communication technologies alters our neuropathways to the extent that digital or screen addiction became an issue to be reckoned with. There is of course, a long history of concern and critical engagement around digital “addiction”, or the compulsive use of digital devices and an excessive amount of screen time. This history for many critical observers culminated in the March 2026 ruling that Meta and YouTube were negligent and that these platforms were purposefully developed and designed to be addictive, thereby causing harm to the mental health of youthful users. The jury rejected Mark Zuckerberg’s claim that Meta does not design apps to maximize screen time. This was a “rare verdict holding Silicon Valley accountable for its role in fueling a youth mental health crisis.” (Allyn, 2026)[2] Compounding the complexity to this issue is AI-dependency and the cognitive offloading it affords that results in diminishing capacities of analytical acuity, critical and independent thinking, problem-solving, and more. This paper explores the complexities and contestations, the arguments and the fears around the “robotization of education”.*

**Keywords:** *AI dependency; cognitive surrender; digital addiction*

### Introduction

Higher education in the digital age has been an ongoing condition of disruption. This is an existential moment for higher education, and in particular a moment in which centuries old forms of assessment are increasingly limited, if not irrelevant. As COVID necessitated invention and improvisation with an intent to retrofit course content and delivery to the imperatives of remote teaching and learning, so AI demands of higher learning require nimbleness and a commitment to a formidable project of educational revision; and such continuous revision is the norm, now and in the future.

As Dani Dilkes argues, during COVID “instructors scrambled to replicate classroom learning online” and eagerly awaited the “return to normal”; that is, a return to the traditional teaching approaches and educational standards. (Dilke, 2026) Such standards, as Dilke argues, are accepted as an “idealized” notion of the modern university which includes for example, the lecture as a primary transmissive model of education. This model has certainly been resilient rooted as it is in an 11<sup>th</sup> to 13<sup>th</sup> century medieval approaches to education. It also includes traditional forms and methods of assessment, and these forms and methods are challenged mightily by AI.



As Stephen Marche argued that AI has signaled the death of the traditional form of the long essay, the bedrock of evaluation in the arts and humanities. (Marche, 2022) Indeed, for undergraduate students, AI rather unproblematically bypasses the demands and conventions of the university essay by bypassing the deep dive of research engagement and the crafting of the essay built on that research—in a sense, AI serves up a text on any theme with immediacy and polish (robotic as the prose may be). Dilkes goes further by identifying the need to challenge and change the very purpose of education; that is, if we continue to emphasize the objective of passing over learning, then student use, or misuse as it were of generative AI technologies “is nothing more than a rational action by a rational agent”. A pithy summary question here might be: Why would we be surprised when students actually use the ready and abundant technological affordances at their disposal?

This question needs to be posed because AI has re-introduced us to an undeniably academic preoccupation--academic integrity. Indeed, plagiarism and other forms of academic dishonesty have long been a cause for hand-wringing distress among every teaching professional in higher learning; and this was a problem with the introduction of Chat GPT and other platforms of generative AI. An initial and clearly persistent institutional response focussed on containment of the technology over integration of the technology, and an attempt to contain the uncontainable is inevitably a pathway to failure.

This paper addresses the currents and controversies in what I call the “robotization of education”. The purpose here is not to embrace or reject AI, both unviable directions and intentions. Educators are well-aware of the range and diversity of perspectives around AI—from contestation to accommodation, from the critical to the celebratory, from opposition to acquiescence, and more—and none of these perspectives is singular or autonomous. Instead, in the complexities of AI and its evolving relationship to educational policies and frontline pedagogical philosophy and practice, education needs to resist the uncritical accommodation of ongoingly emergent AI technologies. Instead, our educational strategy and vision must be to forge capacities, qualities, resources, and assets in relation to AI that serve and not lead pedagogical invention.

### **Brain Melt**

Almost 20 years ago, Nicholas Carr asked the compelling question, “Is Google Making Us Stupid?”. This was the title of his article in the *Atlantic* that formed the foundation for his book, *The Shallows: What the Internet is Doing to our Brains*. (Carr, 2020) Carr’s concerns with the internet were focussed less on the unprecedented availability of a digital avalanche and velocity of information and more with how the very communicative form of the internet molds our sense of self and society, and the priorities and assumptions we make about the world. The consequences have been profound and both cognitive and cultural in nature. Following advances in neuroscience research, Carr offers an account of a particular neuroplasticity—how the brain changes with experience; that is, how our use of communication technologies alters our neuropathways to the extent that digital or screen addiction emerged as urgent and critical malaise in contemporary and likely future society.

In recent times there has been a spate of studies that have asked key questions about how we perceive, engage with, and depend on AI. These questions focus on the urgencies and themes of AI’s potential impacts, including for examples: “Is AI making us stupid” (Kosmyna et al, 2025)[4] and is AI “reshaping” and diminishing human reasoning” in the process of “cognitive surrender” (Shaw and Nave, 2026)[5]. At issue is the ultimately damaging inclination to abandon critical thinking and to outsource thinking to AI technology. While we have been cognitive offloading for a rather long time—writing to stand in for memory, calculators for computation, GPS for mapping and navigation, search engines for quick answers and comprehensive perspectives, and more. Cognitive surrender is an entirely different process. As John Nosta contends, (Nosta, 2026)[6] LLMs go well beyond memory and navigation; rather “they can offload the formation of thought itself.” He refers to the diminution of the “friction of thought”, not an extension of cognition but a replacement for cognition. What this looks like in education is that the technology has “bypassed the very processes that create understanding.” Dialogism, the foundational principle of education since Socrates is not even a hint in the unidirectional process of cognitive surrender as the “user” is passive and muted.

AI dependency in the educational context is particularly problematic because it short-circuits rather than strengthens the cognitive friction or struggle that is foundational to learning. Such technology offers an



irresistible prospect for the inclined student, Instead of the labour-intensive cognitive struggle, students turn to the ready-to-wear solution of the instantly retrievable, fluent, and more than adequate AI answer.

Neil Postman once mused on what he called the Faustian bargain of technology: “technology giveth and technology taketh away”. This is a useful critical strategy of course that recognizes technological advance as both a blessing and a curse. The contestations of perspectives ranges from conceptualizing AI as a means, acceleration, and advantage in scientific research and innovation, for instance; and also as tyrannical and ethically malleable as a technology never merely used but in fact as one that shapes society and therefore has massive consequences in the realms of politics and culture, social norms, ethics and morality, education and intelligence. Postman argued that technology is an “ecological” force that is not simply additive but in fact alters the very bases of human perception and the environments in which we acquire knowledge, seek and find truths, understand and sustain social relations. (Postman, 1992) [7]

Technological advance and elaboration have always been determinative in education and pedagogical practice and priorities, and the accelerated pace of technological change outpaces our abilities to assess it, let alone make policies for it. Metaphorically speaking, the ground is shifting as we stand on it and herein lies the formidable challenge for higher education. As a vast industrial robotization transforms societies around the globe, from culture to business, from industrial strategy to everyday social life, from the operations of government to the operation of domestic space, how do we conceptualize the project, the vision, and the mission of higher education. The dilemma faced is how we revise, but more comprehensively invent teaching and learning around AI that go beyond lists of prohibitions and recognize the imperative of AI literacy and ethicality among our students.

### **Calls for “Pause”**

In March 2023, more than 1000 tech industry leaders, AI researchers, and other AI technology experts signed an open letter that was published by the *Future of Life Institute*.(FLI). (FLI,2023)[8] They called for a six-month pause on the development of AI systems. This push for a moratorium arose from compelling factors of an existential nature. In particular, the letter offered a warning of social, economic, and political disruption, even crisis as AI enabled the acceleration of misinformation and elaborated the long-established threat of comprehensive automation and the replacement of humans across every sector in society (from jobs and labour force, to political fracturing and diminished political capacity, to business and finance, to education, to governance, to the law, and countless other societal institutions, and more.)

The advocacy for slowness, or even a moratorium in AI development and application is forcefully resonant in education. In Canada, the Action Network, British Columbia—an open-source platform for individuals and community-based, grassroots groups to organize and advocate for progressive causes—recently disseminated a petition for signatures of educators to support and mobilize for a “pause” in AI in all provincial K-12 and post-secondary schools.(Action Network BC, 2026)[9] The petition demands that students will not use generative AI in classroom, nor use generative AI for homework. With reference to major studies in the fields of education and psychology, the petition details the “harms” of AI use in schools including harms to learning, relationships and emotional development, and mental health. This campaign is linked to a global organization, the influential PauseAI which engages in action, advocacy, intervention, and mobilization in opposition to AI, and is a nexus and clearing house for websites, documentaries, books, research papers, organizations, and more that are critical of AI’s accelerated insinuation and restructuring of societal systems and institutions.(

PauseAI is part of an expanding and organized intervention that defines the risks and threats posed by AI. Such threats include misinformation, polarization and the threat to democracy; deepfakes and scams; automated biases and discrimination; joblessness and social and economic inequities; isolation, digital addiction and mental health; surveillance and loss of privacy; environmental burden and harm of data centres; AI powered weaponry; and more.

The cause for pause is persuasive and impelling, and calls to action are irrefutably evidence-based and philosophically sound and driven by ethical and moral motivations. The train of AI however, has left the station, to apply a common idiom; but the contestations over AI are motivated by a concern that this does not become a runaway train.



## The Robots Are Coming for Our Jobs

The idea of the robotization of society identifies a radical and decisive transformation from industrial automation (itself a profound epochal social transformation) to the broad integration of robotics into society. The ethical risks of robotization are legion in number and clearly are the source of a deep and pervasive anxiety. As our daily interactions with institutions of government, business, education, medicine, law, entertainment, and much more are increasingly interactions with trained bots, the more pointed and vigorous the debates around AI have become.

For our students, even as they use AI as an extraordinarily resourceful academic servant, the complexity of AI compounds an already fraught and contingent world. This is a world beset with strife and rancor; a world in which the young see their futures predetermined, even foreclosed in the incendiary state of the globe; a world in which the pace and magnitude of dehumanizing technological advance creates waves of anxiety; a world in which the financial futures of the young and the promise of lucrative and fulfilling jobs look like a cul-de-sac as AI is ongoingly transformative and foundational in defining these futures.

A widely reported, during graduation week in the US, “the emissaries of the nation’s elite” (Heilweil, 2026)[11] made their appearances at commencement ceremonies on campuses across the nation, imparting wisdom and insight it is hoped, in pithy and quotable rhetoric. As Heilweil notes, “The problem this year, however, is that the news of the day is artificial intelligence, and students just don’t want to hear it.” It probably wasn’t the kind of viral attention she thought she might receive, but on May 8 Gloria Caulfield, a real estate executive and commencement speaker at the University of Central Florida was resoundingly booed by students as she offered a celebratory and effusively optimistic declaration of the beneficence of AI and its importance as the “next industrial revolution”. In a similar vein, On May, Nashville-based Big Machine Records CEO Scott Borchetta (famous as the “discoverer” of Taylor Swift) gave a commencement speech to graduates at Middle Tennessee State University was booed as he spoke glowingly of AI with a particular emphasis on the fact that AI was “rewriting production” at that very moment. In response he exhorted the students to “deal with it”. And former Google CEO Eric Schmidt was booed by students at the University of Arizona’s Graduation ceremonies at the mention of AI’s impact on jobs and the future of graduates who need to adapt to a technology that will “shape the world.” The question he asked is whether the students will “shape artificial intelligence”. His question was not well-received, but he did utter a truth when he noted, “There is a fear in your generation”.

It is noteworthy that Apple co-founder of Apple, Steve Wosniak was cheered in his commencement address at Grand Valley State University in Michigan when he assured his audience, “You all have AI—actual intelligence.” He assiduously avoided the inflated rhetoric of triumphalism that characterizes most of the discourse around AI as he encouraged students to use their innate creativity and curiosity, an emphasis on human traits, on creation over copying, on submitting to algorithms to define their lives and ultimate careers.

If the AI bots are coming, the members of Gen Z appear to not be joining the pep rally. Amongst youth, there is prevailing skepticism around AI’s effects and outcomes and anxiety about AI’s negative impacts, especially automation and diminishing job prospects. The disgruntled students were understandably unreceptive to AI boosterism and admonitions to get on board with a future defined, driven, and dominated by AI and automation when what they’re feeling is unsettlement, anxiety, and anger.

## Conclusion: A Seismically Shifting Ground

Undeniably, young minds are fearful of and challenged by a future of AI ubiquity and its determinative power. Numerous studies and critical analyses have established this unsettled relationship between AI and the young (Brynjolfsson, et al., 2025) [12]; Williams, 2026[13]; Sonnenfeld, et al., 2026) [14]; Gallup, Walton Family Foundation, GSV, 2026) [15]. Gen Z is the predominant demographic population in terms of entering the workforce in the next decade, and as characterized in the 2026 Gallop, Walton Family foundation study, this generation is “navigating a complex relationship with artificial intelligence (AI) that is marked by plateauing use, declining optimism and growing concern about its impact.” The numbers are revealing. In comparison with 2025 results, “excitement” about AI dropped fourteen percentage points, “hopefulness” about AI dropped nine percentage points, and anger about AI rose by nine



percentage points. A 2025 Harvard poll similarly pointed to “uncertainty about the future of work” among young adults who see “fewer opportunities, greater threats to job security, and diminished meaning in their careers.” Indeed, the poll results indicated that by more than a 3:1 ratio, young adults believe that AI will reduce opportunities. (Institute of Politics, Harvard Kennedy School, 2025).[16]

Youth increasingly see their futures as predetermined dead ends. Our students are deeply anxious about AI-driven futures, comprehensively automated societies, massive technical and economic shifts, joblessness and labour redistribution, social isolation, the erosion of creativity, the devaluation of educational degrees, the inability to think critically and independently—all concomitant fears of increasing robotization. This prevailing state of uncertainty around AI needs to be addressed with a critical understanding of the complex milieu of digital life and culture, a milieu of digital distraction and compulsion compounded by a perpetually emerging AI. Digital addiction is insightfully metaphorized in Paul Abela’s reading of Samul Beckett’s masterpiece, the absurdist play, *Waiting for Godot*, as a thematic basis for looking at contemporary techno-saturated/device-dominant life. (Abela, 2026) [17] This is the “Godot generation”, posits Abela, a generation born of 21<sup>st</sup> century technology, a generation “fated to live in a perpetual state of waiting, eagerly anticipating a sound or vibration signalling the next fleeting message to be read quickly and as quickly forgotten.” Attention spans are shallow and evanescent and everyday life is one of perpetual distraction and boredom punctuated by alerts.

All true perhaps, but while this digital addiction is now inextricably connected to emergent AI, there is a restlessness afoot amongst our young students that is expressed in the echoes of boos—a robust protest against AI as a potential death of critical engagement, creativity, and original and independent thinking; or even thinking itself in the process of cognitive surrender. Paradoxically of course, these same students heavily use AI and the professoriate is clambering over a seismically shifting ground to try and save critical thinking.

That our students will be expected to be AI-fluent in the career fields they pursue is not debatable. How they learn to develop such fluency and apply AI strategically and productively, critically and ethically is the challenge of enormous consequence for higher learning, its institutions, policies and pedagogies. Artificial intelligence policies are being crafted and published at an accelerated pace. [see UC Berkeley Law, 2026 for one of the most thorough and finely detailed policies][18] Besides the inevitable litany of rules and prohibitions, such policies must proceed from a statement on educational philosophy, ethics and obligations for students, instructors, and administration, and the urgent need for the development of independent and critical cognitive skills which must come first in the determination of the use, the quality, and above all, the ethicality of AI.

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